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APPLICATION NUMBER: 60/499,013 FILING DATE: September 02, 2003

Certified by

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Provisional Patent Application for Patent in USA



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Title of the Invention

Cyber Accounting System (CAS)

(A System of Accounting of Real and Virtual World Commercial Transactions, using Cyber Space Technology)

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No Of Pages: 30 including 11 Charts

- This application is being made directly by the inventor and no attorney or agent is involved.
- No U.S.Government agency has a property interest in this application

Name: Prakasham Uma Pathy
Date: 27th August 2003

Payment Particulars: 'DD NO 034149 dt 27-08-2003

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Newyork, Drawn by ICICI Bank LLI,. Nungambakkam High Row Branch CHENNAI, INDIA 600034 Page 2 of 30 of the Provisional Patent Application made by Prakasham Uma Pathy for Cyber Accounting System

Cross Reference to Related Applications: Not Applicable

Statement Regarding Federally Sponsored Research or Development: Not Applicable

Reference to a Microfische Appendix: Not Applicable

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Background of the Invention:

Accounting Concept:

Accounting is one of the oldest professions of business and consists of a systematic recording of business events. The purpose of accounting is to record events in such a manner that they can be collated or otherwise organized to draw meaningful information that would be helpful in conducting business.

Accounting can be for physical goods or for monetary value. An example of physical goods accounting is inventory accounting. Under this connotation, accounting records the number of pieces of a given item in the possession of a business, number of such pieces manufactured or bought, number sold, number remaining etc.

Since the manager of a business would like to analyse different aspects and events on a common platform, in the system of accounting on the basis of monetary value, the physical assets are reduced to a common denominator of a currency. In this system called "Financial Accounting", all events are recorded in value terms with an accepted currency as a base. For example when 5 pieces of an equipment are sold, the event would be recorded as "\$ XYZ worth goods sold". The reduction of every physical item into \$ value terms enables financial accounting to consolidate and arrange business transactions to reflect the totality in \$ terms.

While the primary information recorded in financial accounting is the event which originates an accounting record, the secondary information consists of reports generated out of such primary records. The examples of primary records are the "Vouchers" and examples of secondary records are "Journals", "Ledgers" etc.

Financial accounting also generates many "Tertiary" records that are required for business analysis such as "Balance Sheets".

There are various methods by which accounts of business transactions are kept. The most popular method of accounting is what is commonly referred to as "Double Entry Book Keeping" where every transaction is recorded in the books under two categories, the "Giver" and the "Receiver". Under this system each business event is identified as affecting two "Heads of Account" one being the giver and the other being the receiver. The convention is to "Debit" the "Receieving Account" and Credit the "Giving Account". Thus every business event gives raise to a set of debit and credit entries matching in value terms. These records are then consolidated for a period and secondary statements and reports are generated. The accuracy of the recording is established by a statement called "Trial Balance" which adds up all Debit entries on the one side and all credit entries on the other side.

When a transaction takes place between two different business entities, the accounting records are generated at each of the entities. As a result when goods are sold from one

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party A to another party B, the physical event of despatch of goods gets recorded in a series of transaction sets each of which has the two elements of debit and credit.

For example when A sells goods to B worth \$ 100, in the books of A, B's account is debited and Sales account is credited with an amount of \$100. When this transaction comes to the knowledge of B, he records it as a debit of \$ 100 to his purchase account and credits to A's account in his books. Thus the one event of a despatch of goods worth \$100 is recorded at both ends of the transaction.

Subsequently when B makes a payment to A in the form of a cheque on Bank C, the originating party of this transaction, namely B, debits A's account in his books and credits his (B's) Bank account. When the cheque comes to the hands of A, he will debit his (A's) Bank account and credit B's account in his book. The two Banks which are the third and fourth parties to the event settle their accounts outside the accounting systems of A and B.

It may be observed that in such transactions the same event has to be recorded at multiple places with a lot of overlapping of information.

During such multi party transactions, there will be a time lag for the information to reach from one end to the other. In such cases, one party would have taken into account the effect of the event while the other would not have. This results in an apparent discrepancy between the two parties which is explained through a record called "Reconciliation Statement".

In an actual business environment due to the multiplicity of parties and transactions, at any point of time, the account books between two entities always keep showing a discrepency which needs to be reconciled.

Thus, duplicity of recording and need for continuous reconciliation are the two features of the accounting system that results in wastage of resources on a massive scale.

Changing Business Scenario

The developments in the business scenario all over the world indicate two distinct trends. First is the increasing use of Computers in record keeping as well as record generation and the second is the communication through networked computers.

Further, in the current scenario of Global business, Internet has been growing as a medium of choice for communication. The share of E-Commerce, where the business itself originates and is carried out on the network has also been growing from day to day.

The power of the Information Technology makes it possible today to concurrently record a business event on the fly and communicate it across the globe in fractions of seconds. The "Accounting Entries" are therefore shuttling across the global information highway in the form of information exchange about a business event.

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Such transaction information presently passing through Cyber Space is not limited to virtual transactions where the goods exchanged are virtual goods and paid for with E-Money or online debits to the physical world money sources such as Bank accounts or Credit/Debit cards. There is a significant level of physical world transaction information that is also being passed through Cyber Space either by use of the Electronic Data Exchange Systems or similar technological interfaces or a simple e-mail.

There are many virtual market places where customer acquisition, product selection and payment takes place entirely on the Cyber Space, even though the back end business is entirely physical world dependent.

As a result of this integration of physical world transactions with the Virtual mode of communication, transactions are getting completed across the Globe on a real-time basis.

However the back end system of "Accounting" of transactions which were developed initially for the physical world use have not undergone the required transformation for harnessing of the Power of Information Technology for efficient real time accounting systems.

The Unfulfilled Need:

In any business environment, it is not only the exchange of benefits that occurs between two accounting entities within the enterprise that needs to be recorded, but also transactions that occur between one accounting enterprise and another accounting enterprise.

When two different entities are involved in business, the accounting system as it exists today creates two different sets of accounts one in each enterprise. As a result when goods are sold by A to B, the sale is recorded in A's books and then the invoice is sent to B. Then the "Sale of A" gets recorded as "Purchase of B" in his books.

Since the current accounting systems of multiple enterprises are controlled independently, the transaction of a sale from A to B gets recorded at both ends with similar details. Thus every transaction is duplicated at another end. In addition at each of these places the records gets backed up at least once and hence there are multiple copies of the same transaction in the total system.

If there was a system whereby the information of the event that generates the accounting entry could be shared by both enterprises, the data stored would be only 50 % of the original data or even less in case of multiple party Events.

In the current IT scenario, it is possible for the systems to be built up with real time exchange of information without sacrifice of either privacy or security of data and the proposed CAS is set to achieve this integration of accounting across enterprises.

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Additionally, in the existing system of accounting, every transaction generated at one enterprise will remain in float for a long time until it is suitably acknowledged at the destination enterprise. These records in float cause a need for "Reconciliation" of account from time to time.

These floating transactions, also become the source of frauds if the reconciliation system is not well organized.

If the accounting system could record transactions as and when they occur and match it with the destination response, the reconciliation would be achieved in real time. Such s system would substantially reduce the incidence of financial frauds.

The unique design of the proposed CAS achieves this objective.

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Brief Summary of the Invention:

CAS is a novel system of Cyber Space based Accounting of intra-enterprise and interenterprise commercial transactions on a real-time basis, by a unique system of recording of the event elements in Cyber Space, in the form of shared, Transient and Archived databanks securely accessible by multiple users of the system for the purpose of generating self configured information extracts on the fly, to meet the accounting needs of the users.

CAS is an accounting system that utilizes the power of Information Technology which was not available when the traditional accounting systems evolved in the commercial world and is an Information Technology solution to a real world accounting need.

CAS is not a system of accounting based on the principle of merely substituting Electronic documents in place of paper documents or using a standard Accounting Software on a remote server. It is a whole new system of real time accounting based on electronic processing of a business "Event" through assignment of appropriate handles and sharing of event data by multiple parties.

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Brief Description of the several views of the drawing:

Chart 1: System description- 1

Chart 2: Event Associated Handles

Chart 3: Transition of Events

Chart 4: CAS-Primary System Description

Chart 4.1: User Registration Subsystem

Chart 4.2: User Authentication Subsystem

Chart 4.3: Floating Events Subsystem

Chart 4.4: Archived Events Subsystem

Chart 4.5: Report Management Subsystem

Chart 4.6: Risk Management Subsystem

Chart 5: CAS-Secondary System Description.

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Detailed Description of the Invention:

Cyber Accounting System (CAS) is an electronic information exchange and processing system. The primary system will reside on a server. The secondary system will be a client based system which interacts with the primary system whenever the network connection is established.

The server based primary system along with the several client based systems form the total CAS system which is the subject matter of this invention.

A graphic description of this set up is given in Chart 1.

The CAS system will be administered at a Server where the Primary system is installed. Further, at each of the systems of the members who avail the service the secondary system would be installed.

Whenever the member user connects onto the network, the server interacts with the client side system to establish the identity and authenticate the member, establish an identity for the session, synchronize the event records in the two systems and to generate alerts on the basis of pre-programmed decision rules. Then the user invokes transaction reporting templates and exchanges information with the server.

At the time of the first configuration of the system immediately after installation, the system will be configured to meet the specific requirements of the member. This will involve business rules as to the reporting of transactions, as well as configuration of different reports.

The Recording of an Event:

One of the essential features of CAS is that any business transaction that needs to be converted into an accounting record will be captured at the originating point as an "Event". Every "Event" will be tagged with necessary handles to be available for the processing of the transactions triggered by the "Event". The essential Event handles are

- 1. Event Tracking Handle
- 2. The Originating Party Handle
- 3. The Destination Party Handle
- 4. Intermediary Party/ies Handle
- 5. Document Type Handle
- 6. Archive Location Handle
- 7. Value Handle
- 8. Transaction Handles Associated with the Event
- 9.Information Exchange Handles for Delivery and Acceptance between the event connected parties.
- 10. Additional Handles if any

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The "Event" and the associated handles are visually depicted in Chart 2.

The Event tracking handle is a system generated tracking number generated at the member client side for further tracking of the event.

The Originating Party handle is a signature imprint of the originating member. The destination and intermediary party handles are the imprints of the identity of other parties whose accounting is affected by the event.

The document type handle links the event to certain decision rules that may need to be invoked for the event.

Archive location handle refers to the location where the primary data of the event will be stored. By default this will be the server from which the service is controlled. Where necessary, the primary data of an event may be stored in a distributed network including the system of select clients themselves.

Value Handle refers to the "Value" assigned to the event which may be a financial value in case of financial accounting or a physical value in the case of material accounting.

Each Event may trigger one or more "Transaction Records" which are records generated at the client side based on the decision rules set up by the member clients. These transaction records are generated on the fly and copies may or may not be held at the local data base of transactions at the client side.

Information Exchange handles refer to the tags assigned when an event is reported from the originating system to the server and from the server to the destination system as well as when the acknowledgement of the receipt of event report travels back from the desitnation party's system to the server and the server to the originating system.

Depending on the requirements, additional handles can be provided to any "Event", In certain cases an "Event" can be considered "Complete" and archived when transactions between the participating members associated with the event is completed though the "Event" has not completed its full life cycle as a business transaction. A typical example would be when a sale takes place between A and B and both have accepted the transaction, the buyer has made the payment through a Bank instrument and the Bank has been requested to transfer the money by lodgement of cheque or otherwise. Such a transaction is complete as between the two parties though not complete in the commercial sense until the paying Banker debits the money to the purchaser's account and brings it to his knowledge, and the collecting Bank transfers the money to the account of the seller and brings it to his knowledge.

If however, the Bank is also a member of the system, the lodging of cheque with the Bank, its presentation to the paying Bank, the debit to the drawee's account, interbank transfer of the money and the final credit to the payee's account may all be defined as additional handles to the "Event".

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Event Status:

CAS recognizes three states of an Event.

The first state is when the event is generated at the originating end and is not yet reported to the Server. This is a transient stage and is converted to the next state the moment the originating system interacts with the server. If the event is aborted without being reported to the server, the "Generated Event" may either be erased or be saved on specific request as a "Draft" for being used later.

The second state is when the event is reported to the server but not all operations that are to be performed on the event are completed. At this stage, the event is recognized as being in a "Floating Stage".

The third state is when the event has gone through all the operations that it is expected to go through. At this stage the event is recognized as being complete and in an "Archived State"

Every event is assigned the "Event Definition" once it is created by the originator. This definition is embedded in the event tracking number itself. Subsequently the status recognition of such an event either as "Floating" or "Archived" depends on the allocation of handles prescribed in the originating definition.

For example, events can be either "Intra Enterprise" or "Inter Enterprise". Some events can be "Multi Enterprise" as well. The number and type of event handles that are assigned to each of these three different types of events would vary.

The "Floating Event" represents events or transactions which have not completed all operations. A report of such floating events arranged according to a specified originating and destination party handles automatically represents a list of "Unreconciled Items" in the normal accounting parlance.

An "Archived Event" is a completed transaction record which is kept in a data base and feeds the generation of various reports that are called "Journals", "Ledgers", "Trial Balance", "Balance Sheets" etc in normal parlance.

The status transition of an event is depicted in Chart 3.

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Primary System Description:

A detailed visual depiction of the Primary System is provided in Chart 4.

The Primary system which is installed in the server consists of subsystems such as

- 1. User Registration Subsystem (URSS)
- 2. User Authentication Subsystem (UASS)
- 3. Float Events Subsystem (FESS)
- 4. Archived Events Subsystem (AESS)
- 5. Report Management Subsystem (ReMSS)
- 6. Risk Management Subsystem (RiMSS)

The system will also consist of a Client interface with which the members can interact with the system, a database to support the information management and an Auto interface with the subsystems on the client side through the Internet or other network connecting devices.

The Auto interface is invoked as soon as the authentication process is completed upon establishment of connectivity between the user's computer and the service providing server.

The user interface is the manually operated interface invoked simultaneously after authentication to enable the user interact with the server side system.

The database contains all information necessary for the service including user configuration and event related information.

A brief description of the functionalities of the subsystems are as follows.

1. User Regtistration Subsystem (URSS)

The CAS is a system of recording of business events of customers who subscribe to the system. If a business event has multiple party involvement and all the parties are members of CAS, the full advantage of the CAS concept can be reaped by all the parties in terms of saved database and real time reconciliation of transactions. However, if any party to an event is not a member, it does not affect the recording of events as for as the member is concerned.

The User registration system is the gateway to the members to the system. During this registration process, the members register the default configuration as well as the variable components of the system. For example the user needs to configure the "Document Types Handle" of an event which describes under which name of account the event is recognized in the system. Similarly, the "Value Handle" may be configured for "Currency", the "Information Exchange" handle may be configured so as to define when an event is to be treated as complete for archival purpose, the "Archival Location" handle

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has to be configured to account for distributed processing etc. In the best use case scenario, default configurations and pre-configured templates are provided for the members to complete the configuration during the registration system.

The registration system will also define the user's preferences regarding encryption of data and use of authentication technologies to secure the information flow.

2. User Authentication Subsystem (UASS)

CAS system is a member oriented service and envisages real time or frequent interaction of the users with the system both at the secondary system and primary system levels.

The secondary system is installed in the user's own computer and standard system authentication procedures and application entry authentication procedures such as Passwords, Digital Signatures, Authentication Tokens, Biometric Authentications, will be used.

The server level authentication will also use standard system authentication procedures and application entry authentication procedures such as Passwords, Digital Signatures, Authentication Tokens, Biometric Authentications. Appropriate security configurations to authenticate both the user and his system will be available for configuration at the time of user registration and the authentication system will be linked to such registration process and subsequent editing of the registration profile.

3. Floating Events Subsystem (FESS)

Floating Events represent those "Events" which have been generated but have not completed their life cycle. The Life cycle of an "Event" is determined based on the handles allocated to it at the time of generation. When all the handles allocated are acquired by the "Event", the "Event" is transferred from the status of a "Float Event" to the status of an "Archived Event" and shifted to a different section of the database.

The Floating Event Subsystem captures the events reported by a member client and holds it in a temporary state until the Event completes its life cycle. It monitors the activities of the members and picks up actions that represent the handles allocated to an event. Where necessary, it generates alerts to different parties prompting action required by them.

The FESS is invoked as soon as a member enters the system through the UASS. As soon as the member entry is reported, FESS will check for any "Event" already available with the system containing a handle indicating that the member is designated as a party to the Event.

If FESS does not identify any earlier "Event" with the member as one of the designated handles, it waits for any event to be reported by the member in the current session.

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If FESS identifies a related event, (This would be the typical case where the member is a destination party of an event already registered by another member) the event would be reported to the member, the fact of report recorded.

Recording of the reporting of the event to the member is the completion of another handle of the event.

If the "Event" contains a handle requiring "Confirmation of Acceptance of Event by the destination party, the "Event" would continue "Floating" until such a confirmation is received either in the same session or in a subsequent session.

When all designated handles are completed, the "Event" would be treated as "Complete" and sent to "Archived Events Database".

One of the standard reports that the members can extract from the CAS is the list of Floating transactions under the handle of a designated originating member and a designated destination member. This will be a list of all business events between the two parties where action is pending form either of the parties. In the traditional accounting system, this is called a "Reconciliation Statement".

Under CAS, the traditional "Reconciliation Statement" can be generated dynamically. All the "Events" that move into "Archived Events" represent "Fully Reconciled" transactions in the traditional concept.

4. Archived Events SS: (AESS)

CAS records all business transacations that affect the accounting system as "Events" and assigns certain "Handles" that determine the designated flow of the "Event" in the system. As and when the transaction passes through a designated operation (eg: event being reported to the designated destination party or the designated party confirming acceptance of the event etc) the handle status changes from "Vacant" to "Full".

When all the designated handles to an "Event" reach the "Full" status, the "Event" itself is treated as completed. CAS then changes the status of the "Event" from "Floating" to "Archived" and hands it over to the AESS.

AESS moves the "Event" to a separate part of the database. Here the "Event" is available for interaction with the "Report Generation Subsystem" so that it can be used for creation of any report that the accounting system may require.

The information held by AESS represents the completed business transactions of a business entity and therefore contains confidential and critical information of an enterprise. Hence the access to this system is regulated by a secured authentication system and the data held securely. Standard encryption procedures including digital signatures may be used for securing this information.

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In cases of highly sensitive information storage such as "Banking Information", the AESS database may be located at a different location and only a pointer to the location is held by the AESS at the main server controlling the CAS.

Such distributed storage of database of archived transactions is accompanied by an embedded secure authentication mechanism so that access to the database by members is appropriately regulated.

For example, when a "Bank" is a participating member of CAS and two members A and B record their money settlement through cheque, the passing of the cheque by the Bank becomes a transaction affecting the "Bank Account" of the members in their books and the "Archived Event" of "Depositing of a Bank Instrument to the Credit of a member's account" results in updation of the customer's "Bank Account".

At the same time in the member Bank's books, the Event updates the "Customer's Bank Account". Since the Bank may opt to hold the "Customer's Bank Account" details under its own control and linked to other applications that it operates, CAS provides for the information to be stored in the server under the full control of the Bank and holds only a reference number of the transaction as a pointer at the AESS of CAS at the main server.

Whenever a request is received for the information through the CAS, the special authentication mechanism is triggered at the distributed database location and the normal precautions that are taken by a Bank in providing access to the customer account are invoked.

5. Report Management Subsystem (ReMSS)

The ReMSS enables members to define various statements that can be extracted out of CAS and satisfies all the needs of traditional accounting business.

The information required for various reports can be taken either from the main server where the Floating Events data and Archived Events data would be stored or from the local member side secondary system.

The typical report can be configured as "Journals" if it collates all events reported by a specified member for a given day. Another typical report can be configured as a ledger account of "Sundry Debtors- a/c Customer" by collating all events reported within an accounting period, where the destination party handle is that of the "Customer" and the document type handle indicates that the event generates a "Money Due form Customer" type record.

Yet another report that can be configured is the "Reconciliation Statement" (Say of transactions with B in the books of A) which is extracted from the list of "Floating Events" with a given party handle of the member A as the originating pary and B as the destination party and vice-versa.

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ReMSS would contain default templates of basic accounting reports which can be chosen by the members through the URSS. Members may also be provided a facility to upload their own formats into the data base of "Report Templates" and configure them as required.

ReMSS with configurable reports enables the system to be used simultaneously by different users and in compliance of the report requirements relative to their accounting standards. For example the same event record can be used to generate the Balance sheet in India based on the Indian Accounting standards as well as a Balance sheet in USA based on the US accounting standards including different currency options.

6. Risk Management Sub System (RiMSS)

RiMSS is a subsystem to identify any unusual patterns of usage of CAS which is indicative of a mistake, fraud or an attempted fraud. The decision rules of when an event is to be treated as "Suspected" and what actions are to be initiated may be configured by the members.

RiMSS will be activated by the URSS and monitor changes in the User information, authentication rules, usage records and also provide for decision rules to be prescribed from time to time by an authorized administrator.

RiMSS will be embedded with a separate authentication rule which will be determined by the members themselves.

CAS-Secondary System (CAS-SS) at the Member's System:

A detailed visual depiction of the CAS-Secondary System is provided in Chart 6.

CAS-SS is a client side sub system of the Total system. It interacts with the CAS-Primary System installed in the server and synchronizes itself from time to time. The synchronization would be in respect of event information to be exchanged and certain basic system parameters such as "System Clock".

CAS-SS will interact with a local data base where "Templates", "Saved Reports", "To be synchronized Event Information" etc.

CAS-SS will have several interfaces with which the member can interact with the system and use CAS. For example there will be an interface for User Registration, Modification of Registration Information etc. There may be another interface for reporting of Events and yet another for Report generation etc.

The user will invoke the necessary interface, complete the particulars available with him. The system will attach certain particulars automatically as per previous configuration if any. The completed information will be kept ready to be synchronized with the Server as and when the member logs into the server at which point it will be assigned the necessary

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tracking identity. If the member creates the information to be sent to the server and does not log in immediately, the information will be stored in the local database for use at a later time.

Principle Benefits of the System:

CAS defines a new system of accounting of business transactions. It is useful for accounting of both E-Commerce and Real-world transactions using the benefits of instantaneous communication available to the community.

CAS provides a dynamic accounting model and is capable of generating any accounting records on the fly.

CAS is capable of connecting multiple parties to a transaction to a common information base of "Events" from which the accounting records for each of them can be drawn separately.

CAS saves data storage space substantially since the common data of "Events" is used by all accounting members.

CAS saves substantially on processing time since common information of an event is captured at the originating stage and automatically system generated in subsequent event processing. It has therefore an embedded Electronic Data Interchange capability.

CAS saves substantial time in preparing the traditional "Reconciliation Statements" which are available on the fly as a report of floating transactions.

CAS provides for substantial reduction of frauds arising out of non reconciliation of transactions between parties to a business transaction.

CAS enables sharing of data without compromising on security of data since user authentication and distributed archived event database takes into account the different security needs of members.

CAS provides for use of digital signatures and biometric techniques of authentication and encryption to provide a legally compliant security standard for the accounting data.

For Small Enterprises, CAS provides centralized accounting and account statement generation on real-time basis eliminating the need for complicated and expensive accounting software

In the best mode of use CAS can be served as an Application Service on the Internet to the global community and will be a highly cost efficient system of accounting for the community.

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Claim or Claims

- 1. CAS is a method of recording business events in a shared virtual space and processing them on a real-time basis to generate business accounting records, said method comprising the steps of
 - a) Capturing the Event details with a predefined set of handles
 - b) Monitoring the Event continuously as a floating event and updating the handles until the predefined cycle of event is completed
 - c) Holding the completed event details in the archived event data base
 - d) Making the data available on a shared basis for generating accounting records by the users of the system.
- 2. CAS is a method as claimed in 1, where in the reconciliation statement of business is embedded in the system of recording of the business transaction itself so as to enable the reconciliation statement to be generated on the fly.

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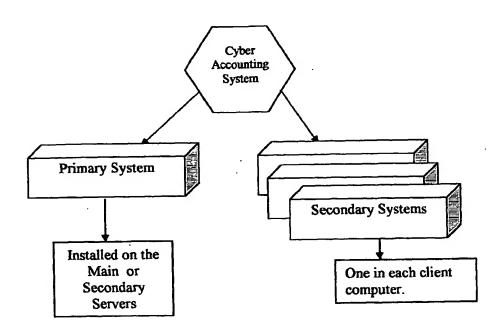
Abstract of the Disclosure

Not Applicable.

Chart 1

Cyber Accounting System

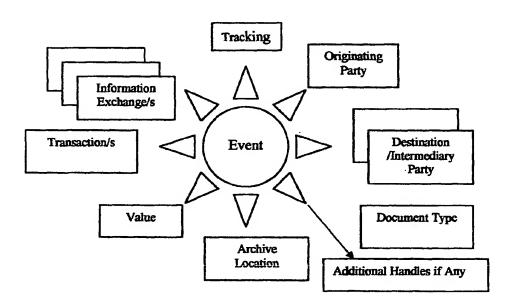
System Description-1



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Chart 2
Cyber Acc unting System

The Event and Associated Handles

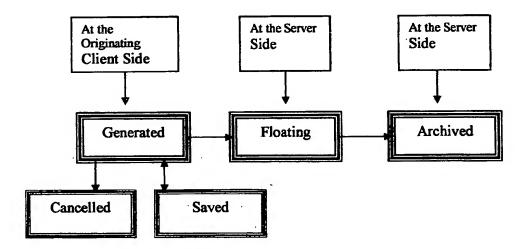


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Chart 3

Cyber Accounting System

Transition Of Event



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Chart 4

Cyber Accounting System

CAS-Primary System Description

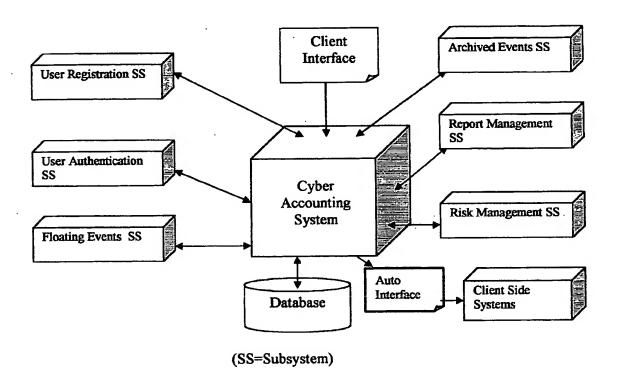
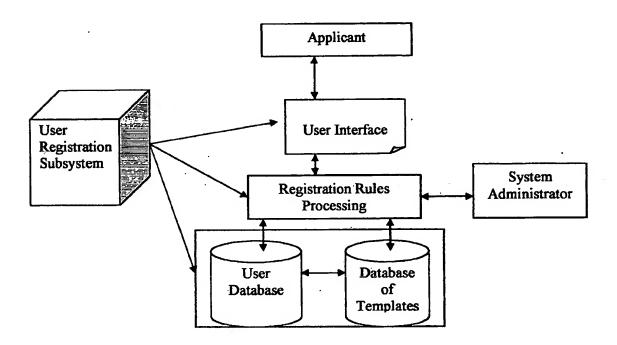


Chart 4.1

Cyber Accounting System

User Registration Subsystem



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Chart 4.2

Cyber Accounting System

User Authentication Subsystem

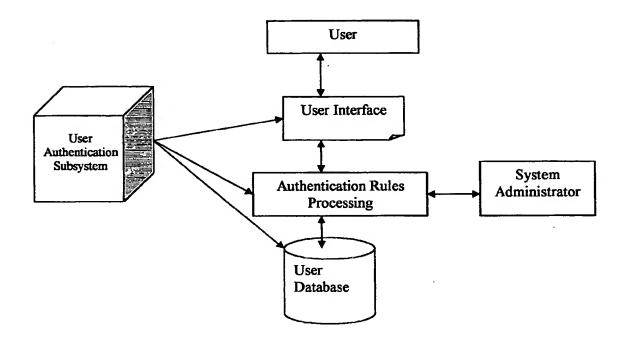
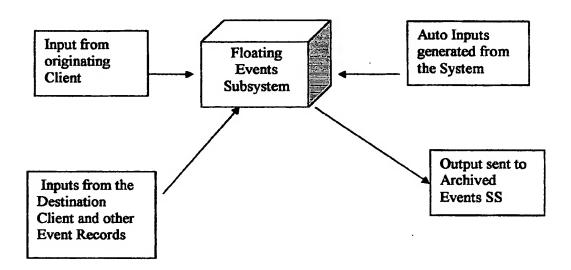


Chart 4.3

Cyber Acc unting System

Floating Events Subsystem

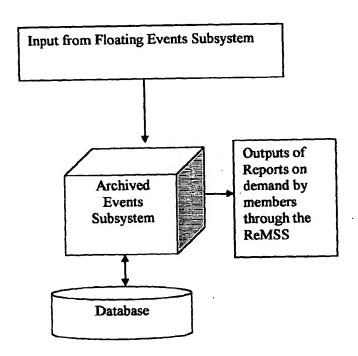


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Chart 4.4

Cyber Accounting System

Archived Events Subsystem

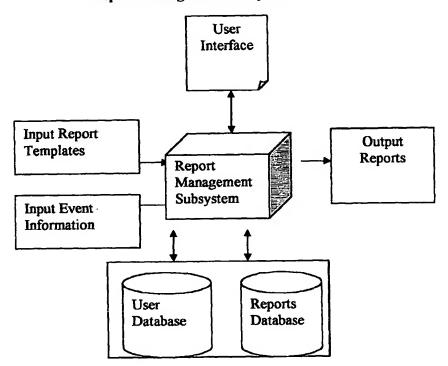


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Chart 4.5

Cyber Accounting System

Report Management Subsystem

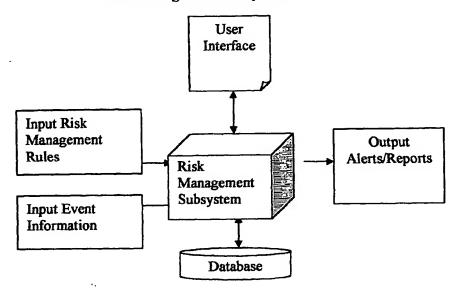


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Chart 4.6

Cyber Accounting System

Risk Management Subsystem

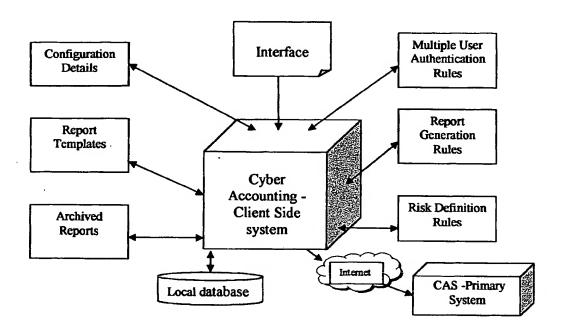


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Chart 5

Cyber Accounting System

CAS Secondary System



Document made available under the Patent Cooperation Treaty (PCT)

International application number: PCT/IN04/000136

International filing date: 17 May 2004 (17.05.2004)

Document type: Certified copy of priority document

Document details: Country/Office: US

Number: 60/499,013

Filing date: 02 September 2003 (02.09.2003)

Date of receipt at the International Bureau: 26 October 2004 (26.10.2004)

Remark: Priority document submitted or transmitted to the International Bureau in

compliance with Rule 17.1(a) or (b)

